

**BE PREPARED**

Bad Weather Is Close at Hand  
Let Us Repair Your

**WEED CHAINS**

Broken Links Replaced  
Broken Sections Replaced

If You Need Weed Chains We Advise  
Immediate Purchase

**Ramsdell Tire Company, Inc.**

102 14th St. N.W.

N. 249

### For the Extra Hard Work of Your Transmission and Differential Gears

Gear complaint when they're worn, just like a man, and that high pitched lament is really a warning signal. It indicates poor lubrication most always. Whatever its cause, it should be stopped at once, for when gears once wear enough to grind, the extra play that causes that grind wears them out proportionately faster as it increases.



### EBONITE For Transmissions and Differentials

Sold in five and twenty-five pound cans by  
garages, gasoline stations and accessory dealers.  
Call for it by name—EBONITE.

BAYERSON OIL WORKS, Manufacturers, Erie, Pa.  
Pennsylvania Petroleum Products  
MAKERS OF AUTOCROT MOTOR OILS

## STANDARD OF THE WORLD

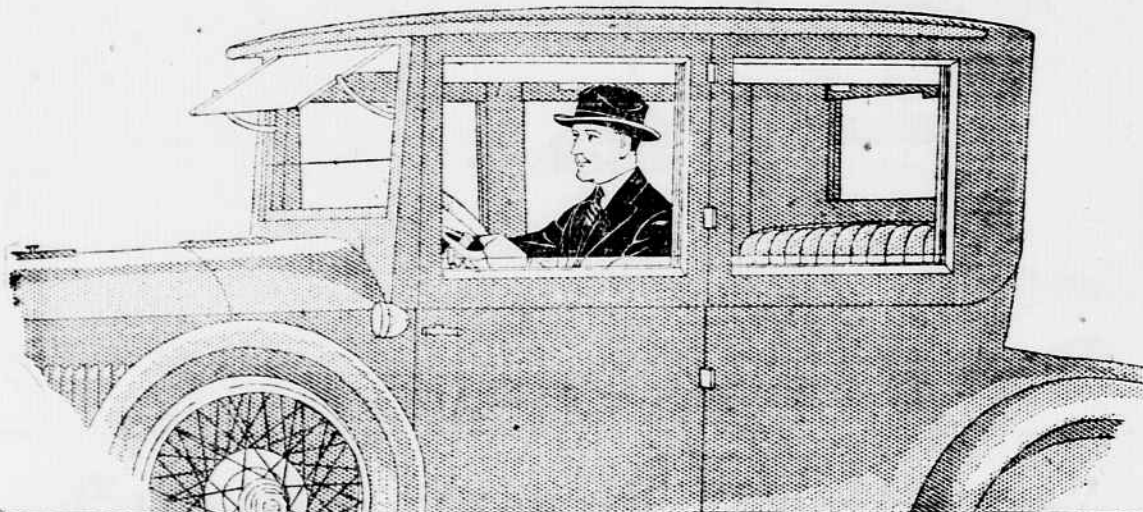
The Cadillac car which  
you have long desired,  
and planned some day  
to own, is available now  
at the reduced prices.

### The Washington Cadillac Company

Rudolph Jose, President  
1138-1140 Connecticut Avenue Franklin 3900, 3901, 3902

T. W. Barrett, Sales and Service, 24th and M Sts.

# CADILLAC



## Give the Family "A Kissel"

Christmas Morning Delivery

## Custom Built for Driving Comfort

No one deserves from the automobile  
manufacturer more thought for comfort  
than the man behind the wheel.

The Kissel Six is custom-built for the  
man or woman who drives, as well as for  
those who ride; and many exclusive fea-  
tures of design and construction earn for  
it this comment of veteran motorists—  
"the easiest car to handle I ever saw".

Because Kissel has planned for driving  
comfort and control, the stems of clutch  
and service brake can be adjusted to foot  
reach; the long gear shift lever is topped  
with a two-inch knob to which the hand  
falls naturally from the wheel; the steering  
post is adjustable to the driver's height.

These are but a few evidences of  
thoughtful design and painstaking work-  
manship that are applied throughout the  
Kissel Custom-Built Six. Add to them the  
ease of riding on the specially designed,  
Kissel-built seats; rare roadability and  
perfect spring suspension; the smooth,  
silent flow of power from the custom-built  
Kissel engine—the total is comfort in its  
broadest sense.

Because Kissel has built to this ideal,  
men who have driven many other fine cars  
set a new and higher standard of satis-  
faction after holding the wheel of this  
Custom-Built Six.

Inspect the car at our showrooms.

### O'Connell-Clark Motor Co.

1101 Connecticut Avenue  
Main 6969

OPEN EVENINGS

# KISSEL

The Custom Built Car

## The Sunday Motorist

An Abridged Magazine for Car Owners.

EDITED BY WILLIAM ULLMAN

Irrespective of the automobile ad-  
vancements, there are really just  
two speeds—lawful and awful.

### Choosing Garage Doors.

While the home garage still exists  
on paper no feature of its construc-  
tion deserves more careful considera-  
tion than choice of a door. A poorly  
planned door may be a source of con-  
tinual regret, while one that cannot  
be operated with a minimum of effort  
will plague the patience of a modern  
job.

Wide openings are essential in  
this type of construction. Both con-  
venience and safety demand that  
ample width of entrance be provided.  
Damaged fenders may be the price  
of sacrificing this detail in an effort  
to lower structural costs. On the  
other hand, a full width entrance may  
necessitate a special type of door,  
built to operate successfully under  
limitations of space that are unavoid-  
able.

Certain considerations strongly in-  
dicate the desirability of having the  
garage door open inwardly rather  
than outwardly. Appearances cer-  
tainly favor the former, but more  
than this is the fact that doors which  
rest when open against the outside  
of the building may be damaged easily  
by wind. Furthermore, it becomes nec-  
essary in winter to remove accumulated  
snow before they can be operated.

In the case of a small garage, built  
to house a single car at the least,  
possible structural expense, it is im-  
possible to arrange the doors to open  
inwardly without resorting to one of  
several devices that may be had for  
so hanging them that they can be  
slid back into the building without  
coming in contact with the car itself.  
Doors of this kind are made in vari-  
ous styles.

For a small building a door of two  
sections, both of which slide to one  
side, can be used. This provides ample  
entrance space for a single car. It is

also possible to hang the doors in  
separate sections—one of which slides  
around to either side. These doors  
operate in small space and close  
tightly into the door frame. Some of  
them have one panel constructed into  
a smaller door, which may be used in  
closing the garage at night. Such doors  
such times as it is not desired to slide  
the larger doors for taking out the car.

Doors built in small sections that  
fold back upon themselves meet the  
requirements of large door openings,  
such as are needed in the garage  
where two cars are kept. These  
doors may be had in any size from  
three to ten panels and may be hung  
at either side or equally on either  
side. Five-section installations are  
sometimes made—three panels on one  
side and two on the other. Each  
section of these doors is supported  
by an overhead track. Consequently,  
they cannot sag and are easily oper-  
ated. If made to fold on the inside of  
the garage the wind can never slam  
or otherwise disturb them. Where  
space conditions make it necessary  
it is possible to install them on the  
outside. This, of course, is not de-  
sirable when the arrangement can be  
effected otherwise.

### Ever Happen to You?

It frequently happens about the  
time a fellow gets his conscience  
quieted down and is all ready to go  
to sleep, a feel with an unbidden ex-  
haust roars by and spoils everything.

### Did You Know—

That paper binding strips, which  
grocers now use in place of cord, is  
handy to seal up the cracks of a  
broken windshield or window? The  
paper not only prevents air and rain  
from coming in, but keeps the glass  
from cracking more or falling out.  
One strip should be attached to the  
outside, one to the inside. The un-  
sightly appearance of these paper  
strips is a constant reminder to the  
owner to have new glass put in when  
they have served their purpose as an  
emergency aid.

That a creaking sound in a rear  
wheel when the clutch is let in may  
be due to a loose wheel on the axle,  
provided the axle is the semi or  
three-quarters floating type, in which  
the wheel is not rigidly attached to  
the axle? In this type of axle the  
wheel fits on to the tapered end of  
the shaft and is locked into place  
with a large nut, which is, in turn,  
secured by a cotter pin. If the wheel  
is a bit loose the axle will slip slight-  
ly when power is applied, and thus  
make a noise similar to that caused  
by turning a tapered glass stopper in  
a bottle. The wheel will not seem to  
be loose at all, but a quarter or half  
turn of the nut will usually stop the  
trouble and prove that it really was  
loose.

### Hard to Believe.

Motor vehicle statisticians have  
gone to the trouble of informing us  
that one-third of the cars registered  
in New York state are located in New  
York city. What a revelation! It  
has always seemed as though all the  
cars were there.

### The Old Mechanic Says:

"When folks come in here to get  
their cars and pay their bills, it's  
funny how they all ask, 'What was  
wrong with it?' They want to know  
what broke or what went wrong,  
what I had to do to fix it and how  
much it all costs. But they seldom  
ask me what caused the trouble, or  
whether they had anything to do with it."

"The trouble with that chap who  
just drove out is that he doesn't know  
how to handle the spark. He thinks  
he picked a 'lemon' just because he  
had to have new wrist pins put in  
every now and again, or a bearing  
taken up. The whole trouble with his  
car is himself. I've told him a dozen  
times not to accelerate the car with  
the spark fully advanced, but he pays  
no attention to my advice, because he  
can't visualize what's going on in his  
engine when he does the wrong thing."

"With the spark fully advanced the  
plugs fire the mixture of their cylin-  
ders long before the pistons reach the  
top of their compression stroke. When  
an engine gets up speed and the  
road is level it's better for the spark  
to arrive early, because it gives the  
gas vapor a better chance to burn  
completely, expand and do its work  
of pushing the pistons down. But  
when the car is dragging, an early or  
advanced spark tends to make the  
pistons reverse their motion. The  
momentum of the car and the speed  
of the engine prevent them from ac-  
tually doing this, but the reverse  
force pistons receive under these  
conditions acts like a hammer blow,  
thus wearing out the wrist pins and  
straining the bearings."

"If that chap would learn to handle  
his spark properly he'd realize that  
his own driving is what gives the car  
the lemon flavor."

### Driving Through Rain.

Various homemade schemes for  
making rain run off the windshield  
are frequently dangerous, in that they  
tend to carry the water off in invis-  
ible grooves. These grooves, whether  
horizontal or perpendicular, cause the  
windshield to become a temporary  
and partial lens, and light seen  
through the windshield, or head-  
lights of other cars shining upon it,  
will cause distortion. In the former  
instance the driver may find that he  
misjudges the position of an object,  
while in the latter the glare of ap-  
proaching headlights will be more an-  
noying than usual. An efficient wind-  
shield wiper is the best solution.

### Trough for Windshield.

Those troughs seen on the roof of  
one of the new closed cars, which are  
used to conduct the rain to the ground  
in such a way that it does not drain  
down over the windows, suggests a  
new attachment for windshields. Many  
motorists—particularly during a warm  
rain—prefer to push the upper half  
of the windshield slightly open, but  
find, upon doing so, the water drip-  
ping from the glass blows in on them.  
So why not a trough for the wind-  
shield? A rubber strip similar to the  
one used between the halves of the  
windshield, but composed of a double  
groove, would be just the thing.

### Keep Straight Ahead.

If you happen to forget to signal  
the fact that you intend turning, and  
if you are suddenly aware that an-  
other car follows, the sensible thing  
to do is to go straight ahead again.  
It means going a block out of your  
way, but considering the possible  
collision you avoid by not getting in  
the way of the other car, it is worth it.

### Do You Remember—

The first compressed air starters  
used on cars and the noise they made?  
An "old-timer" claims that his made  
so much noise that a fair passenger  
fainted, thinking she had been shot.  
When acetylene gas was first used  
for self-starting, many a driver en-  
joyed the experience of seeing his  
cylinder head come through the hood.  
It isn't any wonder that the "con-  
servatives" preferred the old hand-  
cranking of getting a broken arm hand-crank-  
ing the old bus.

### Observations.

The fact that there will be more  
cars sold this year than last sub-  
stantiates the early spring prediction  
that wilful neglect of cars in 1920  
would call for abnormal replacement  
sales this year. 1922 has been a rec-  
ord year in spite of the fact that it  
was mainly a replacement year, bring-  
ing thereby the modern maxim,  
"Once a motorist always a motorist."  
Statistics show that the proportion  
of accidents resulting from skidding  
is becoming less. This fact, consid-  
ered in the light of our recollection  
of 1922 a rain-soaked year, simply  
proves that practice makes perfect.  
Copyright, 1922, by the Ullman Feature Service.

### JOURNEY OF 3,428 MILES MADE IN FIFTEEN DAYS

Couple Travels in Automobile.  
New York to Washington State,  
at Cost of \$73.45.

BUCODA, Wash., December 16.—  
With a total monetary outlay of  
\$73.45, Mr. and Mrs. F. F. Smith of  
Bath, N. Y., arrived in Bucoda last  
week to visit L. D. Smith. The trip  
of 3,428 miles, was made by Mr. and  
Mrs. Smith in fifteen driving days in  
their Willys-Knight car and was de-  
void of any mishap of any sort.  
The trip from Bucoda, Ohio, to  
Columbus, Montana, was made through  
snowstorms for almost the entire  
distance, the worst storms being  
encountered in Montana, where the  
snow was from six to eight inches  
deep.  
The tourists carried their own

camping equipment, which allowed  
them to cut hotel bills and thereby  
reduce the cost of the trip. Average  
mileage each driving day was 228  
miles, the maximum distance covered  
in any one day being 281 miles, the  
minimum, 123.

### IS ONE OF TWO SPEAKERS.

Will Rogers is going into the auto-  
mobile business for one night. He  
will be one of the two speakers at  
the annual dinner of the National Au-  
tomobile Chamber of Commerce to be  
held in the Hotel Commodore, New  
York, January 9. This expert larri-  
coter and humorist will talk on the  
subject, "What I Think About Au-  
tomobiles."

### USE OF BIGGER TIRES.

Excess of Load Calls for Oversize  
Equipment.

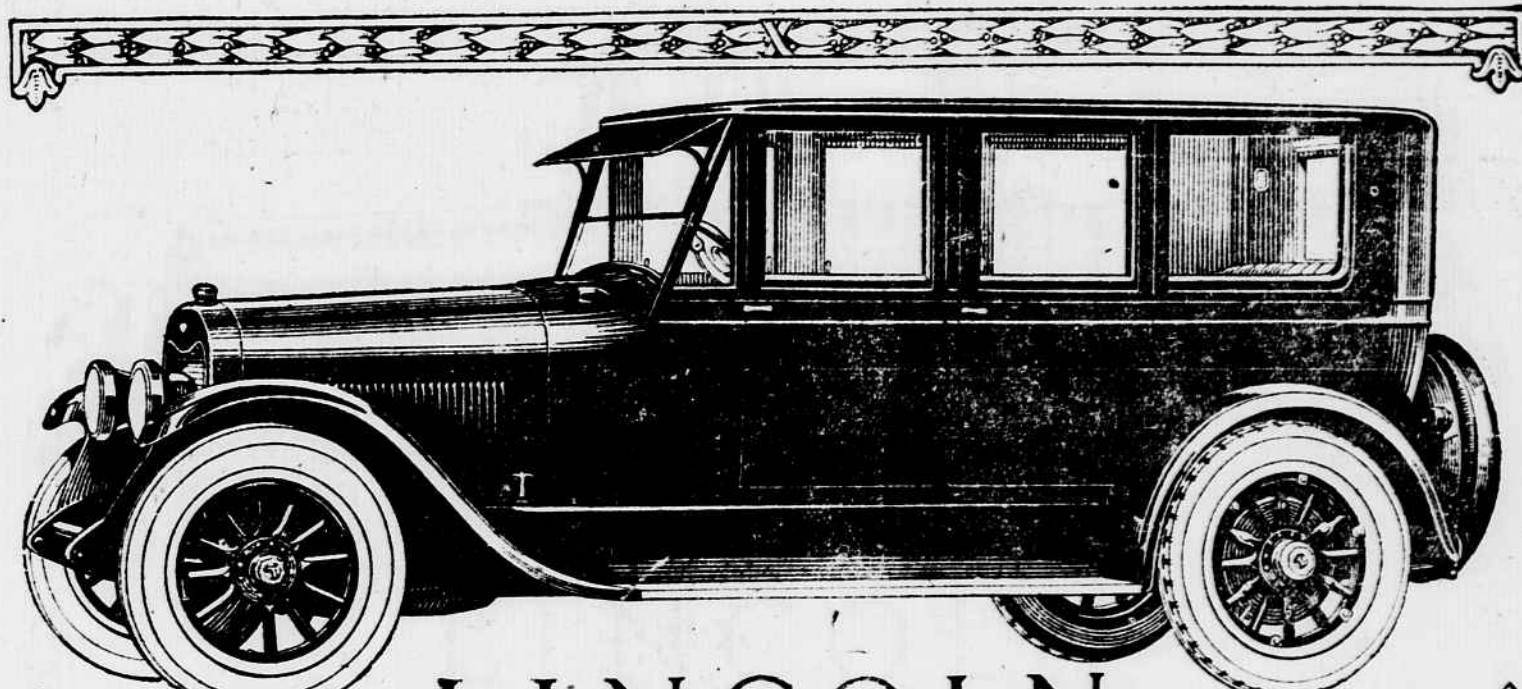
The car manufacturer equips the  
automobile with tires the correct  
size and type for the car's weight and  
carrying capacity, and, at the same  
time, the tires are classed by the tire  
manufacturer with a specified infla-  
tion capacity.

"If," says a Firestone service bul-  
letin, "you expect to carry excess  
passengers occasionally or invest in  
numerous accessories, and if easy rid-  
ing is a special desideratum, over-  
size tires should by all means be  
specified, otherwise your tires will  
not give you the service ordinarily  
expected."

Cress is the quickest growing plant.  
It has been known to flower and seed  
within eight days of planting.

### AUTO GLASS

FOR WINDSHIELDS OR BODIES  
Installed While You Wait.  
**Taranto & Wasman**  
107 NEW YORK AVE. N.W.  
**Radiators and Fenders**  
ANY KIND MADE OR REPAIRED  
Care Installed in any make.  
10 DIFFERENT MAKES RADIATOR  
WITTSTATTS, R. and F. WOI!  
319 13th. F. 5410. 1425 P. M.  
**TRADE SCHOOL**  
FOR THE  
**AUTO INDUSTRY**  
LARGEST SCHOOL IN THE EAST  
Courses for Garage Owners, Salesmen,  
Electricians, Mechanics, Vulcanizers, Etc.  
Day and Evening Classes.  
**American Motor School**  
1612-1622 Yes St. Phone North 19400



## LINCOLN

Get Behind the Wheel

The Seven-Passenger  
Sedan

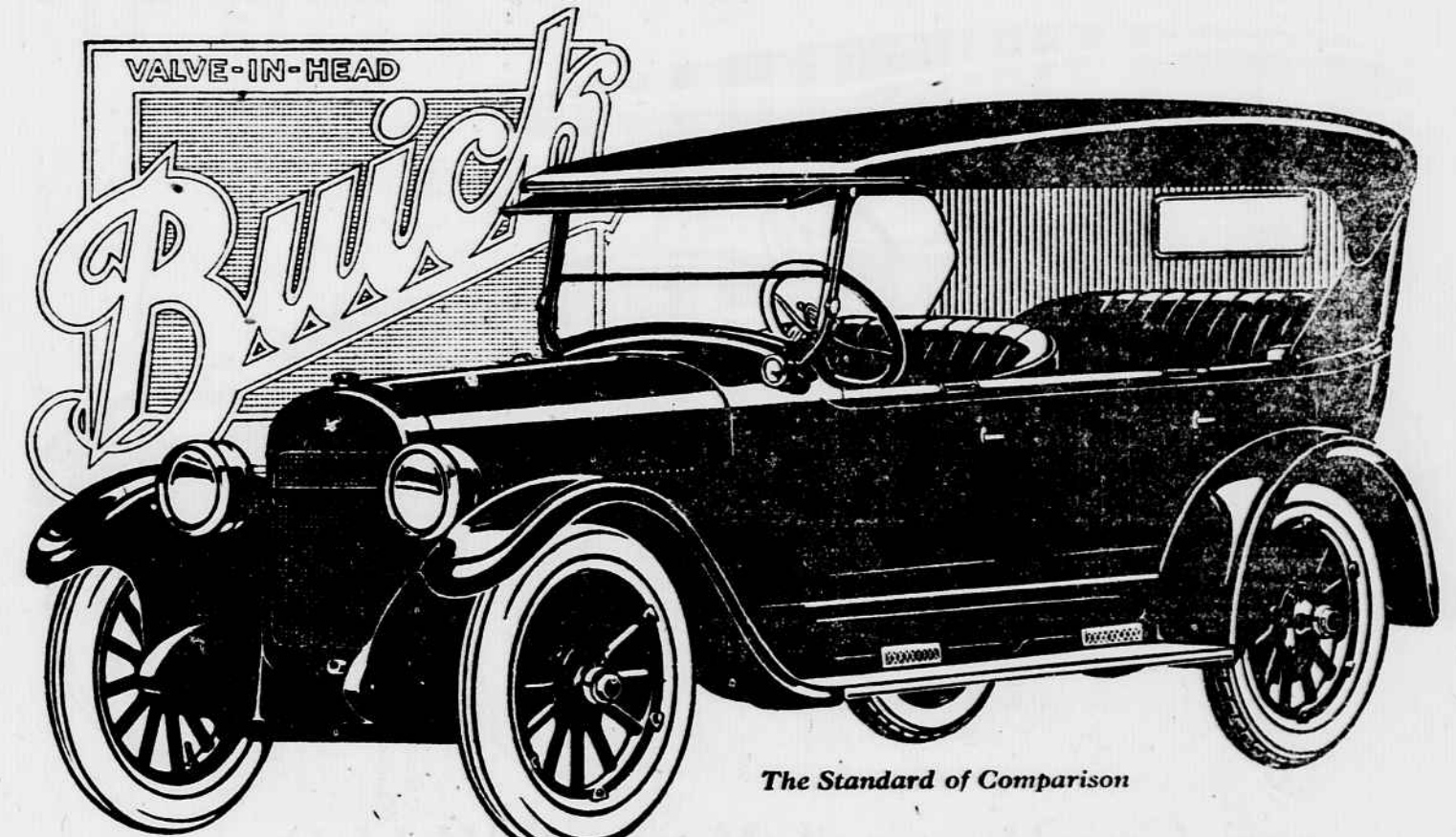
**\$4900**

F. O. B. Detroit  
Ten Body Types

The ease of mind and sense of security in driving a Lincoln  
endures from the minute you open the throttle until you  
are back from the trip.

The 8-cylinder motor—cylinder blocks set at an included  
angle of 60°, the refinements of which show the greatest  
engineering skill in the motor car industry, gives to the  
Lincoln, without qualification, the finest automobile power  
plant ever developed.

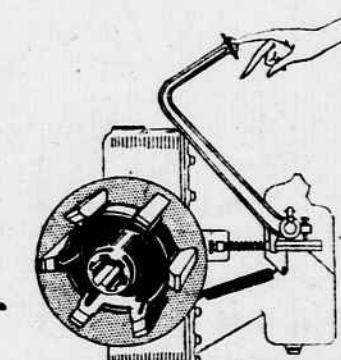
Ask Any Authorized Washington Lincoln and Ford Dealer.



The Standard of Comparison

## For Cold Weather Motoring Confidence

The Buick Seven Passenger Touring—\$1435



### The Famous Buick Clutch

A finger's pressure disengages the Buick  
clutch, yet the clutch is always positive  
in its action. The clutch in all models  
has a drop forged hub with a ground  
bearing surface.

The Buick Line for 1923  
comprises Fourteen Models:

Ask about the G. M. A. C.  
Purchase Plan and pro-  
viders for Deferred Payments

	Fours		Sixes		Eights		Tens		Twelves	
	23-34	23-37	23-44	23-45	23-47	23-48	23-49	23-50	23-51	23-52
	\$865	\$895	\$1175	\$1195	\$1245	\$1295	\$1345	\$1495	\$1545	\$1595

**BUICK MOTOR COMPANY, WASHINGTON BRANCH**  
14th and L Streets N.W.

**EMERSON & ORME**  
1620 M Street N.W.  
Phone Franklin 3380

**FLETCHER MOTOR CO.**  
Alexandria, Va.

**C. C. WATERS & SON**  
Gaithersburg, Md.

**ROSSLYN MOTOR CO.**  
Rosslyn, Va.

**STANLEY H. HORNER**  
1015 14th St. N.W.  
Phone Main 5296

**OREM MOTOR CO.**  
Waldorf, Md.

When better automobiles are built, Buick will build them